

VOROB'YEV. V.V.

Present state and basic problems of the population geography of
Siberia and the Far East. Dokl. Inst. geog. Sib. i Dal'. Vost.
no. 2:56-65 '62.

(MIRA 18:20)

VOROB'YEV, V.V.

Development of taiga areas and the problem of their settlement.
Dokl. Inst. geog. Sib. 1 Dal', Vost. no.7:58-64 '64. (MIRA 18:10)

VOROB'YEV, V. V.; STEPANOV, M.N.

Moscow - Building

New appearance of Moscow. Geog. v shkole no. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

VOROB'YEV, V. V., STEPANOV, M. N.

Russia - Economic Conditions - Maps

Map of the industrialization of the U.S.S.R., Geog.v shkole no. 1, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

VOROB'YEV, V.V.; STEPANOV, M.N.

Books about the Altai Territory. Reviewed by V.V.Vorob'ev,
M.N.Stepanov. Geog.v shkole no.2:76-78 Mr-Ap '54. (MIRA 7:2)
(Altai Territory--Description and travel)

STEPANOV, M.N.; VOROB'YEV, V.V.

Local publications devoted to individual towns. Reviewed by
M.N. Stepanov, V.V. Vorob'ev. Vop.geog. no.38:266-270 '56.

(MLRA 9:9)

(Cities and towns --Book reviews)

VOROB'YEV, V.V.

"Economic geography" [In English]. Reviewed by V.V.Vorob'ev. Izv.
Vses.geog.ob-va 87 no.1:86-90 Ja-F '55. (MIRA 8:4)
(United States--Economic geography--Periodicals)

VOROB'YEV, V.V.

Principal changes in the geography of urban developments in the south of Eastern Siberia during the last 40 years (1917-1957).

Nauch.dokl.vys.shkoly; geol.-geog. nauki no.2:230-234 '58.

(MIRA 12:2)

1. Moskovskiy universitet, geograficheskiy fakul'tet, kafedra ekonomicheskoy geografii SSSR.

(Siberia, Eastern--Cities and towns)

BLINKIN, A.M.; VOROB'YEV, V.V. [Vorobyov, V.V.]

Diffusion of iron in zirconium. Ukr. fiz. zhur. 9 no.1:91-
95 Ja '64. (MIRA 17:3)

1. Khar'kovskiy gosudarstvennyy universitet.

YOROB'YEV, V.V.: *Card* Master Geogr Sci (diss) -- "The towns of the southern portion of eastern Siberia (Historical-geographical outline)". Moscow, 1958.
Moscow State U imeni M.V. Lomonosov), 150 copies (KL, No 1, 1959, 115)

BUYANTUYEV, B.R.; VOROB'YEV, V.V.

Urban type settlements of Buryat-Mongolia. Kraeved.sbor.
no.4:42-71 '59. (MIRA 13:7)
(Buryat-Mongolia--Cities and towns)

VOROB'YEV, V.V.

Types of urban settlements in southeastern Siberia, Vop.geog.
no.45:99-112 '59. (MIRA 12:5)
(Siberia, Eastern--Cities and towns)

SOCHAYA, V.B., otv. red.; KROTOV, V.A., prof., otv.red.; GERASIMOV, I.P.,
akad., red.; POKSHISHEVSKIY, V.V., prof. red.; RIKHTER, G.D.,
prof., red.; VOROB'YEV, V.V., kand.geogr.nauk, red.; KUDINOVA,
L.I., red.; KHMEL'NITSKAYA, Ye.S., red.; SEPPING, H.G., red.;
PECHERSKAYA, T.I., tekhn.red.

[Geographical problems of Siberia and the Far East; results of
the First Scientific Conference of the Geographers of Siberia and
the Far East] Problemy geografii Sibiri i Dal'nego Vostoka; itogi
Pervogo nauchnogo soveshchaniya geografov Sibiri i Dal'nego Vosto-
ka. Irkutsk, Irkutskoe knizhnoe izd-vo, 1960. 133 p.

(MIRA 14:5)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut geografii
Sibiri i Dal'nego Vostoka. 2. Chlen-korrespondent AN SSSR (for
Sochava)

(Siberia--Geography)

(Soviet Far East--Geography)

VOROB'YEV, V.V., KOSMACHEV, K.P.

First conference of geographers of Siberia and the Far East.
Izv.Sib.otd.AN SSSR no.1:147-148 '60. (MIRA 13:7)
(Geography—Congresses)

VOROB'YEV, V.V.
BARANSKIY, N.N.

"Cities in the southern part of Eastern Siberia"; historical and
geographical studies by V.V.Vorob'ev. Reviewed by N.N.Baranski.
Geog. v shkole 23 no.4:58-59 Ag 1960. (MIRA 13:10)
(Siberia, Eastern—Cities and towns)
(Vorob'ev, V.V.)

VOROB'YEV, V.V.

Some problems of the economic geography of Irkutsk. Trudy Vost.-
Sib. fil. AN SSSR. no.32:61-79 '60. (MIRA 14:4)
(Irkutsk--Economic conditions)

VOROB'YEV, V.V.; NEDESHEV, A.A.

Influence of peculiarities in the development of Chita upon the
present-day features and functions of the city. Trudy Vost.-Sib.
fil. AN SSSR no.32:87-95 '60. (MIRA 14:4)
(Chita--Economic conditions)

VOROB'YEV, V.V.; KRUCHININA, L. Yu.

Methodology of preparing maps showing the distribution of
population in Irkutsk Province. Trudy Vost.-Sib. fil AN
SSSR no.32:130-135 '60. (MIRA 14:4)
(Irkutsk Province--Population--Maps)

VOROB'YEV, V.V.

Characteristics of natural conditions in central Yakutia
from the point of view of agriculture as illustrated by
the Amga Valley. Biul.MOIP.Otd.geol. 35 no.1:131
Ja-F '60. (MIRA 13:7)

(Amga Valley--Physical geography)
(Agriculture)

POKSHISHEVSKIY, V.V., prof., doktor geogr. nauk, otv. red.; VOROB'YEV,
V.V., kand. geogr. nauk; MEYEROVICH, O.V., red. izd-va;
PRUSAKOVA, T.A., tekhn. red.

[Geography of the popylation of Eastern Siberia] Geografiia nase-
leniia Vostochnoi Sibiri. Moskva, Izd-vo Akad.nauk SSSR, 1962.
162 p. (MIRA 15:7)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut geografii
Sibiri i Dal'nego Vostoka.
(Siberia, Eastern--Pcpulation)

VOROB'YEV, V.V.

Research work on the geography of Siberia and the Far East.
Sib.geog.sbor. no.1:231-238 '62. (MIRA 16:2)
(Siberia—Geographical research)
(Soviet Far East—Geographical research)

KLEPOV, I.L.; VOROB'YEV, V.V.

"Geographical problems of Yakutia." Reviewed by I.L.Kleopov, V.V.
Vorob'ev. Izv. Vses. geog. Ob-va 94 no.3:263-265 My-Je '62.
(MIRA 15:7)

(Yakutia—Geography)

L 08168-62 EWT(m)/EWP(t)/ETI IJP(e) JD/JG

ACC NR: AP6024861

SOURCE CODE: UR/0056/66/051/001/0032/0037

AUTHOR: Finkel', V. A.; Smirnov, Yu. N.; Vorob'yev, V. V.

ORG: Physicotechnical Institute, Academy of Sciences Ukrainian SSR (Fiziko-technical Institute Akademii nauk Ukrainiskoy SSR)

TITLE: Crystal structure of terbium at 120 -- 300K

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 32-37

TOPIC TAGS: terbium, low temperature research, crystal lattice structure, x ray diffraction analysis, phase transition, paramagnetism, antiferromagnetism

ABSTRACT: This is a continuation of an earlier study of the crystal structure of rare earth metals (REM) (ZhETF v. 49, 1774, 1965), which was devoted to gadolinium. The present study was devoted to 99.5% pure polycrystalline terbium. The low-temperature x-ray diffraction procedure employed was also described by the authors earlier (ZhETF v. 47, 84, 1964 and v. 49, 1077, 1965). The tests were made at temperatures 120 -- 300K. The results show that at 234K there a λ -anomaly of the coefficient of linear expansion, connected with the transition of the paramagnetic terbium into the antiferromagnetic state. At 223K a jump in the atomic volume is observed, signifying that the transition of the antiferromagnetic helicoidal structure into a ferromagnetic one (with colinear ordering) is a first-order transition. A small rhombic

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L 08168-67

ACC NR: AP6024861

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distortion of the hexagonal crystal structure of the terbium lattice takes place at 223K. Slight discrepancies observed between the measured values of the transition temperatures and the latest published data may be connected with difference in the purity of the investigated terbium. Orig. art. has: 4 figures

SUB CODE: 20/ SUBM DATE: 31Jan66/ ORIG REF: 006/ OTH REF: 013

Card 2/2 nst

ACC NR: AP7000134

SOURCE CODE: UR/0115/66/000/011/0085/0085

AUTHOR: Al'bikov, Z. A.; Vorob'yev, V. V.; Shuvalov, R. S.

ORG: none

TITLE: A converter of time to amplitude

SOURCE: Izmeritel'naya tekhnika, no. 11, 1966, 05

TOPIC TAGS: digital analog converter, electronic circuit

ABSTRACT: A time-to-amplitude ($t \rightarrow A$) converter is described. Time-displaced input pulses u_1 and u_2 are applied to two monostable tunnel diode flip-flop circuits (TD_1 and TD_2) at the input of the converter (see Fig. 1.) The output pulses of these

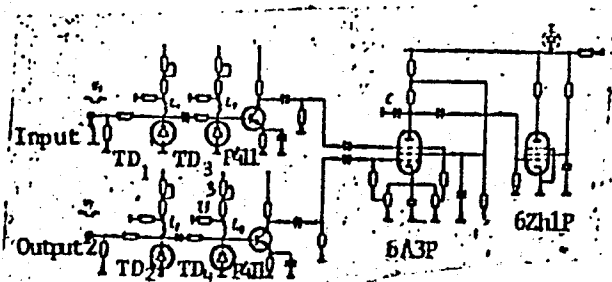


Fig. 1. Schematic diagram of the time-to-amplitude converter

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ACC NR: AP7000134

flip-flops are of equal amplitude and time duration. Pulse shapers containing tunnel diodes TD_3 and TD_4 extend the working amplitude range of the converter. The two pulses are then amplified by the $P411$ transistors and applied to the grids of the 6A3P tube. As long as the two pulses overlap, capacitor C (18 nf) in the anode circuit of the tube 6A3P linearly discharges through the tube. The voltage change across capacitor C is amplified by tube 6Zh1P and is proportional to the time shift between the two input pulses. The converter has an input resolution of 40×10^{-12} sec (at mid-height of the input pulses) which stays constant for input frequencies between 50 and 100 kc; it was used for measuring input pulses in the amplitude range from 1 to 90 with durations of $(3-100) \times 10^{-9}$ sec. Orig. art. has: 2 figures.

SUB CODE: 09/ SUBM DATE: 28Aug65/ ORIG REF: 001/ OTH REF: 001/ ATD PRESS: 5107

Card 2/2

ACC NR: AP6032475 SOURCE CODE: UR/0056/66/051/003/0786/0790

AUTHOR: Finkel', V. A.; Vorob'yev, V. V.

ORG: Physicotechnical Institute, AN UkrSSR (Fiziko-tekhnicheskiy institut AN UkrSSR)

TITLE: Crystal structure of dysprosium at 77—300K

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 3, 1966, 786-790

TOPIC TAGS: crystal, crystal structure, crystal lattice, crystal lattice structure, dysprosium

ABSTRACT: The crystal structure of dysprosium is studied by the low-temperature x-ray diffraction method at temperatures between 77 and 300K. It is shown that at 178K, a negative λ anomaly of thermal expansion coefficients occurs which is related to a phase transition of the second kind similar to the helicoidal antiferromagnetism—paramagnetism type of transition. A discontinuity in the crystal lattice period and atomic volume at 85K and also the appearance of rhombic distor-

Card 1/2

ACC NR: AP6032475

tions of the hexagonal lattice related to an antiferromagnetism-ferromagnetism phase transition of the first kind are observed. Orig. art. has: 3 figures.
[Authors' abstract]

SUB CODE: 20/SUBM DATE: 28Apr66/ORIG REF: 007/OTH REF: 006/

Card 2/2

VOROB'YEV, Viktor Vasil'yevich; STEPANCHUK, Anatoliy Andreyevich;
MAGON, E.E., red.

[Raising calves and piglets with the use of milk substitutes] Vyrashchivanie teliat i porosiat s ispol'zovaniem
zamenitelei moloka. Leningrad, Kolos, 1965. 54 p.
(MIRA 19:1)

VOROB'YEV, V.V. [Vorobiov, V.V.]

Distillation of yttrium. Ukr. fiz. zhur. 10 no.7:786-792
Jl '65. (MIRA 18:8)

1. Khar'kovskiy gosudarstvennyy universitet im. Gor'kogo.

L 9534-66 EWT(m)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWA(c) JD/HM
 ACC NR: AP5026293 SOURCE CODE: UR/0125/65/000/010/0052/0054

AUTHOR: Shleymovich, S. S. (Engineer); Vorob'yev, V. V. (Engineer); Rubanovich, B. B. (Engineer)
 44.55 44.55 44.55 62 56 B

ORG: [Shleymovich] Ministry of River Fleet RSFSR (Ministerstvo rechnogo flota RSFSR);
 [Vorob'yev] Orgenergostroy; [Rubanovich] Trest "Stal'konstruktivaya"
 44.55 44.55

TITLE: Experience in unshielded arc welding with bare alloy wire
 44.55 16

SOURCE: Avtomaticheskaya svarka, no. 10, 1965, 52-54

TOPIC TAGS: unshielded arc welding, welding technology, shipbuilding engineering, construction

ABSTRACT: Mechanized unshielded arc welding with bare alloy wire, developed in 1962 at the Ye. O. Paton Institute of Electric Welding, dispenses with the use of shielding atmospheres which is of major importance to mechanizing welding operations in shipbuilding and construction. What is more, it reduces by 35-40% the number of transverse deformations compared with manual and submerged-arc welding. The technique has been used with positive results to mechanize reinforcement-welding operations during the construction of poured-on-the-spot and precast reinforced concrete structures in the Konakovo, Kirshev and Burshtyn power stations, where it has served to markedly

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ACC NR: AP5026293

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reduce the cost and time of the construction and assembling operations. The related experience shows that use of this technique to weld 100 joints of 40 mm thick reinforcement in the vertical position saves about 450 rubles and in the bottom position, 165 rubles (compared with manual welding). Mechanized unshielded arc welding has also been introduced since 1963 at the Gomel' and Astrakhen' shipyards, with similarly satisfactory results. In addition, it has been used to weld together sheets of structural metal. It is a technique that assures an increase in productivity and reduction in production cost in conditions when other methods of mechanized welding are not applicable. Orig. art. has: 3 figures, 2 tables.

SUB CODE: 11,13/ SUBM DATE: 09June65/ ORIG REF: 003/ OTH REF: 000

Beh
Card 2/2

IVANOV, V.Ye. [Ivanov, V.IE.]; VOROB'YEV, V.V. [Voroblov, V.V.];
BALENKO, E.P.

Yttrium refinement in a vacuum. Ukr. fiz. zhur. 10 no.5:
543-547 My '65. (MIRA 18:5)

1. Khar'kovskiy gosudarstvennyy universitet im. Gor'kogo.

L 5103-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG
 ACCESSION NR: AF5018639

UR/0185/65/010/007/0786/0792

AUTHOR: Vorobyov, V. V. (Vorob'yev, V. V.)

TITLE: Distillation of yttrium

SOURCE: Ukrayins'kyi fizychnyy zhurnal, v. 10, no. 7, 1965, 786-792

TOPIC TAGS: yttrium, distillation, rare earth element

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ABSTRACT: Further possibilities were investigated of utilizing vacuum distillation for obtaining high-purity yttrium by using a condensation column with a temperature gradient. The temperature of the column varied from 1550 to 1600C. The distilling was carried out in an electropolished stainless steel chamber in a vacuum 5×10^{-6} mm Hg. The distillation was from a tantalum crucible and the condensation was in a column with tantalum substrate. The column consisted of molybdenum and stainless steel cylinders, one inside the other, which served as radiation shields. The rate of evaporation was 6.7×10^{-5} g/cm²sec. The results show that the distillation method yields yttrium of purity 99.8 wt.% with impurity content 1.4×10^{-3} , $<2.5 \times 10^{-3}$, $<3 \times 10^{-2}$, and 1.65×10^{-2} wt.% Mg, Al, Si, and Fe, respectively, and with only traces of Ti and Ni. The rare earth impurity content was also reduced considerably, to 2.6×10^{-2} , 2.3×10^{-2} , $<5 \times 10^{-2}$, and $<5 \times 10^{-2}$ wt.% of La, Gd, Tb, Er,

Card 1/2

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ACCESSION NR: AP5018639

and Ce. A shielded condensation column with heating was also used to distill yttrium. The rate of evaporation at 1600C was $13.1 \times 10^{-5} \text{ g/cm}^2\text{sec}$. Analysis of the condensate obtained between 1370--1430C indicates increased Mg, Fe, and Cu content. Orig. art. has: 6 figures and 3 tables.

ASSOCIATION: Kharkivs'kyi derzhuniversytet im. O. M. Hor'koho [Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo] (Khar'kov State University)

SUBMITTED: 01Sep64

EXCL: 00

SUB CODE: GC, MM

NR REF SOV: 004

OTHER: 009

Card 2/2 *hd*

VOBOB'YEV, V.V., inzh.

Shortcomings of State Standard 4598-60 for fiberboards. Der. prom.
14 no.4:8-9 Ap '65. (MIRA 18:5)

SOCHAVA, V.B.; VOROB'YEV, V.V.

Problems of the geography of the eastern regions of the R.S.F.S.R.;
results of the Second Scientific Congress of the Geographer. of
Siberia and the Far East. Sib. geog. sbor. no.3:271-318 '64.
(MIRA 18:3)

PUKHOV, Grigoriy Aleksandrovich; SYSOYEVA, Larisa Pavlovna;
VOROB'YEV, V.V., red.

[Group technology in welding] Gruppovaia tekhnologiya v
svarochnom proizvodstve. Leningrad, 1965. 28 p.
(MIRA 18:5)

SMIRNOV, G.N.; KUMYSH, A.Z.; VOROB'YEV, V.V.

[Improvement of safety equipment, dust removing ventilation, and waste removal from Ch-460-L combing machines]
Usovershenstvovanie sredstv tekhniki bezopasnosti, obespylivaiushchaia ventilatsiia i udalenie ugarov na chesal'nykh mashinakh Ch-460-L. Ivanovo, 1963. 39 p.

(MIRA 17:5)

1. Ivanovo. Vsesoyuznyy nauchno-issledovatel'skiy institut okhrany truda VTsSPS.

SOCHAVA, V. B.; VOROB'YEV, V. V.

Practice in coordinating the work of the Siberian and Far Eastern
organizations of the Geographical Society of the U.S.S.R. Izv.
Vses.geog.ob-va 96 no. 2: 140-144 Mr-Apr '64. (MIRA 17:5)

ACC NR: AP6029082

SOURCE CODE: UR/0413/66/000/014/0156/0156

INVENTOR: Rubtsov, M. V.; Mikhlina, Ye. Ye.; Vorob'yeva, V. Ya.; Lobanov, D. I.; Komarova, N. A.

ORG: none

TITLE: Preparation of 1-carbethoxymethyl-4-carbethoxypiperidine Class 12,
No. 149106

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 156

TOPIC TAGS: ~~carbethoxymethylcarbethoxypiperidine synthesis~~, ethyl isonipelate
alkylation, chloroacetic acid ester, *ALKYLATION, CARBON COMPOUND*

ABSTRACT: To increase the yield and to simplify the preparation of the title compound by alkylation of ethyl isonipicate (I) with ethyl chloroacetate, the hydrochloride of I is alkylated in anhydrous ethanol in the presence of Na_2CO_3 . [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 05Sep61

Card 1/1

MANUYLOVA, M.M.; VOROB'YEV, V.Ye.; OSTROUMOV, G.V.

Pegmatites in the Bol'shaya Minya Valley and their mica potential.
Trudy Lab. geol. dokem. no.11:111-116 '60. (MIRA 14:1)
(Bol'shaya Minya Valley--Pegmatites)
(Bol'shaya Minya Valley--Mica)

COMMON ELEMENTS		PROCESSES AND PROPERTIES INDEX		AND 4TH CODES	
<div style="font-size: 2em; font-weight: bold; margin-bottom: 10px;">VOROB'YEV, V. E.</div> <div style="font-size: 1.5em; margin-bottom: 10px;">11F</div> <div style="font-size: 0.8em;"> Investigation of human blood preserved in sucrose solution. V. E. Vorob'ev. <i>J. Physiol.</i> (U. S. S. R.) 26, 714-74 (1930); <i>Chem. Zentr.</i> 1930, II, 3710. -- An app. is described with which it is possible to study the properties of preserved blood. With the use of this app. a relatively rapid disintegration of the leucocytes in the sediment of sucrose-citrate blood (at 20°) was observed. Only a slight decrease in the sugar content of the plasma was detected after 6-25 days. A considerable part of the sugar went into the erythrocytes, where it could be detected, so that only a slight change in the total sugar content over 25 days was observed. </div> <div style="text-align: right; margin-top: 10px;">M. G. Moore</div>		<div style="text-align: center; font-weight: bold; margin-bottom: 10px;">METALLURGICAL LITERATURE CLASSIFICATION</div> <div style="font-size: 0.8em;"> ROOM SYMBOLS: 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 11000 12000 13000 14000 15000 16000 17000 18000 19000 20000 21000 22000 23000 24000 25000 26000 27000 28000 29000 30000 31000 32000 33000 34000 35000 36000 37000 38000 39000 40000 41000 42000 43000 44000 45000 46000 47000 48000 49000 50000 51000 52000 53000 54000 55000 56000 57000 58000 59000 60000 61000 62000 63000 64000 65000 66000 67000 68000 69000 70000 71000 72000 73000 74000 75000 76000 77000 78000 79000 80000 81000 82000 83000 84000 85000 86000 87000 88000 89000 90000 91000 92000 93000 94000 95000 96000 97000 98000 99000 100000 101000 102000 103000 104000 105000 106000 107000 108000 109000 110000 111000 112000 113000 114000 115000 116000 117000 118000 119000 120000 121000 122000 123000 124000 125000 126000 127000 128000 129000 130000 131000 132000 133000 134000 135000 136000 137000 138000 139000 140000 141000 142000 143000 144000 145000 146000 147000 148000 149000 150000 151000 152000 153000 154000 155000 156000 157000 158000 159000 160000 161000 162000 163000 164000 165000 166000 167000 168000 169000 170000 171000 172000 173000 174000 175000 176000 177000 178000 179000 180000 181000 182000 183000 184000 185000 186000 187000 188000 189000 190000 191000 192000 193000 194000 195000 196000 197000 198000 199000 200000 201000 202000 203000 204000 205000 206000 207000 208000 209000 210000 211000 212000 213000 214000 215000 216000 217000 218000 219000 220000 221000 222000 223000 224000 225000 226000 227000 228000 229000 230000 231000 232000 233000 234000 235000 236000 237000 238000 239000 240000 241000 242000 243000 244000 245000 246000 247000 248000 249000 250000 251000 252000 253000 254000 255000 256000 257000 258000 259000 260000 261000 262000 263000 264000 265000 266000 267000 268000 269000 270000 271000 272000 273000 274000 275000 276000 277000 278000 279000 280000 281000 282000 283000 284000 285000 286000 287000 288000 289000 290000 291000 292000 293000 294000 295000 296000 297000 298000 299000 300000 301000 302000 303000 304000 305000 306000 307000 308000 309000 310000 311000 312000 313000 314000 315000 316000 317000 318000 319000 320000 321000 322000 323000 324000 325000 326000 327000 328000 329000 330000 331000 332000 333000 334000 335000 336000 337000 338000 339000 340000 341000 342000 343000 344000 345000 346000 347000 348000 349000 350000 351000 352000 353000 354000 355000 356000 357000 358000 359000 360000 361000 362000 363000 364000 365000 366000 367000 368000 369000 370000 371000 372000 373000 374000 375000 376000 377000 378000 379000 380000 381000 382000 383000 384000 385000 386000 387000 388000 389000 390000 391000 392000 393000 394000 395000 396000 397000 398000 399000 400000 401000 402000 403000 404000 405000 406000 407000 408000 409000 410000 411000 412000 413000 414000 415000 416000 417000 418000 419000 420000 421000 422000 423000 424000 425000 426000 427000 428000 429000 430000 431000 432000 433000 434000 435000 436000 437000 438000 439000 440000 441000 442000 443000 444000 445000 446000 447000 448000 449000 450000 451000 452000 453000 454000 455000 456000 457000 458000 459000 460000 461000 462000 463000 464000 465000 466000 467000 468000 469000 470000 471000 472000 473000 474000 475000 476000 477000 478000 479000 480000 481000 482000 483000 484000 485000 486000 487000 488000 489000 490000 491000 492000 493000 494000 495000 496000 497000 498000 499000 500000 501000 502000 503000 504000 505000 506000 507000 508000 509000 510000 511000 512000 513000 514000 515000 516000 517000 518000 519000 520000 521000 522000 523000 524000 525000 526000 527000 </div>			

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B015/B060

AUTHORS: Mchedlov-Petrosyan, O. P., Vorob'yev, Y. L.

TITLE: Prospects of Application of Some Natural ²¹Magnesium
Hydrosilicates in Industry

PERIODICAL: Silikattechnik, 1960, No. 10, pp. 466-472

TEXT: The present article has been translated by Dr. G. Wagner, Berlin. The authors discuss the structure of serpentinite along with its binding properties and mention papers by Syromyatnikov, Medvedev (tests conducted at the asbestos-enriching plant of the Association "Soyuzasbest"), Oganessian, Budnikov, and Bereshnoy (Ref. 6), Vernadskiy (Ref. 12), Roginskiy (Ref. 23), Belov (Refs. 39-41), Sobolev (Ref. 42), Zhuravlev (Ref. 47), Bernal, Rebinder, Ratinov, and others. Figs. 7 and 8 illustrate the authors' idea of a simplified scheme of the modifications undergone by serpentinite on heating. This scheme permits establishing the correlation among partial dehydration, presence of lattice distortions, and appearance of activity. The re-arrangement of the

Card 1/4

Prospects of Application of Some Natural
Magnesium Hydrosilicates in Industry

G/005/60/000/010/005/006
B015/B060

tetrahedra on the transition from antigorite to forsterite can take place in three ways, viz., by slight rotation around the symmetry axis of the antigorite tetrahedron; from two peak oxygen atoms and the central OH ion from a destroyed tetrahedron; by the displacement of base oxygen atoms from destroyed tetrahedra and transition of the OH ion to O at the vertex. The scheme offered here differs from those of other authors on related minerals by the presence of a stage of active state. The region of formation of this metastable transition state appears during the heating process prior to the complete disappearance of the antigorite crystal lattice and the formation of forsterite in the range of 600-700°C for serpentinite, and 700-750°C for precious serpentinite, or, in other words, on heating to the temperature of the maximum endothermal effect (Fig. 10, thermogram). Potentiometric investigations of the hydration process in serpentinite cement have shown that a pH drop may be observed in the period of active hydration (Table 1). In the back-hydration of the cement (dehydration of the intermediate) there occurs

Card 2/4

Prospects of Application of Some Natural
Magnesium Hydrosilicates in Industry

G/005/60/000/010/005/006
B015/B060

under the action of OH ions a crystal-chemical dispersion of the cement granules of the medium in particles of colloidal size as well as a structure formation on their basis and a crystallizing intergrowth of resulting aggregates, in which connection a partial superficial dissolution of the binding agents, formation of oversaturated solutions, and crystallization are possible. The authors base on their study of the properties of serpentinite cement to conclude as follows: the energy of the crystal lattice of binding agents must be considerably larger than the energy of the crystal lattice of the corresponding hydrates. The excess free energy from mineral formations possessing binding agent properties is caused by the presence of lower or degenerate coordinations of active structure cations. The pH is of greatest importance in the development of binding agent properties. Hydrates must form stratified crystals. Next, the authors supply data regarding the properties and the technology of serpentinite cement. A characteristic of the latter is that the rock is ground before burning, so that insufficient or excess burning is avoided and great economy is achieved. Mention is made of building materials on the basis of serpentinites, such as concrete and

Card 3/4

Prospects of Application of Some Natural
Magnesium Hydrosilicates in Industry

G/005/60/000/010/005/006 ✓
B015/B060

mortar, road surfaces and other coatings, construction units and
ornamental objects. The use of serpentinites as raw materials for the
chemical industry and the production of refractories is also discussed.
Akunov, Bazhenov, and Sal'nikova, Geriyeva, Desov are mentioned in the
text. There are 11 figures, 1 table, and 60 references: 42 Soviet.

Card 4/4

UoRob'yev, Ya. G.

807/553
827/7-4-3

TABLE 1 BOOK INFORMATION

Abdullin, Mark S. S. Laboratory of Aerial Photography

Trudy, tom 6: Materialy VII Vsesoyuznogo nauchnoissledovaniya serezhnashchey
po aerey yam 25 kogbrye - 1 datsbrye 1956 g. (Materials of the
7th All-Union Interdepartmental Conference on Aerial Surveying, 25
November-1 December 1956) Moscow, Geopolitizdat, 1959. 300 p.
5,000 copies printed.

Ed. of Publishing House: V. G. Filatov; Tech. Ed.: O. A. Gureva;
Editorial Commission: E. G. Kail', Corresponding Member, Academy of
Sciences USSR; A. A. Logachev, V. P. Kirovskiy (Dep. M.),
and E. S. Shubov.

NOTES: This publication is intended for photogrammetrists, geologists,
geographers, and other scientific and technical personnel concerned
with aerial photography.

CONTENTS: This issue of the Transactions of the Laboratory of Aerial
Survey Methods contains the second part of materials presented at
the 7th All-Union Interdepartmental Conference on Aerial Surveying
which took place in Leningrad, November 25 through December 1, 1956.
Articles treat problems dealing with the execution and application
of aerial survey methods in geological, geomorphological, and geo-
physical investigations. Special attention is directed to aerial
survey methods in geological and geomorphological mapping and geo-
physical investigations under various different conditions. The techniques of joint
aerial and ground photography and aerial photography are described.
References accompany individual articles.

TABLE OF CONTENTS:

Evgenov, A. I. [All-Union Scientific Research Institute of Geophysical
Prospecting Methods]. Results of Application of the Aerial-Geophysical
Combined (Radiometric and Magnetometric) Method of Prospecting 453

Chelov, V. P. [Baikovo-Institutskiy Institut serezhnashchey -
Scientific Research Institute of Territorial Magnetism]. Synthesis
[Small-Scale] Map of Magnetic Anomalies and Methods of Using the
Aeromagnetic-Survey Data to Absolute [Reference] Values of the
Magnetic Field Intensity 461

Dumakov, V. M. [All-Union Scientific Research Institute of Geophysical
Prospecting Methods]. Techniques and Results of a Regional Aero-
magnetic Survey of the Barchanovskiy Russian Plateau [To the Study
of the Magnetic Anomalies] Using High-Resolution Coordinates 467

Shin, P. A. [Trust Khimfrazvedeniya - Siberian Trust for Oil Prospecting
by Geophysical Methods]. Aeromagnetic Survey of Siberia and Their
Utilization for Geological Purposes 472

Evdakov, V. B. [Kazakhskiy geofizicheskyy trust - Kazakh Geophysical
Prospecting Trust]. Results of Integrated Aerogeophysical Exploration
in Certain Regions of Kazakhstan 477

Mal'kov, O. S. [All-Union Scientific Research Institute of
Geophysical Prospecting Methods]. Results From the Aeromagnetic
Survey of Caspian Regions 480

Yechayev, B. G. [Kazakhskiy geofizicheskyy trust - Western Geophysical
Prospecting Trust]. Preliminary Results of the Aeromagnetic Survey
in the Eastern Part of Turkmenistan Carried Out in Connection With the
Exploration of Oil-Bearing Structures 489

Shubov, Y. L. [All-Union Scientific Research Institute of Geophysical-
Prospecting Methods]. Application of Aerial-Survey Methods and
Equipment to Geophysical Oil Prospecting 493

Palitsyn, E. D., O. M. Druyer, and A. A. Shubov [Laboratory of Aerial-
Survey Methods, Academy of Sciences, USSR]. A Integrated [Combined]
Use of Aerial Photography and Aerogeophysical Prospecting in Geological
Explorations 496

AVAILABILITY: Library of Congress

Card 10/10

20/Nov/56
7-48-50

VOROB'YEV, Ye.

Effect of labor turnover on production. Biul.nauch.inform.: trud
zar.plata 4 no.6:26-29 '61. (MIRA 14:6)
(Moscow—Automobile industry—Production standards)

VOROB'YEV, Ye.

Effect of technological innovations on the increase in labor
productivity. Sots. trud 6 no.8:69-72 Ag '61. (MIRA 14:8)
(Technological innovations) (Labor productivity)

SOV/146-58-4-7/22

9(2,3)
AUTHOR:

Vorob'yev, Ye.A.

TITLE:

The Probability of Obtaining a Given Super-High Frequency Antenna Directivity Pattern

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy, Priborostroyeniye, 1958, Nr 4, pp 36-44 (USSR)

ABSTRACT:

Imperfections in the manufacture of antennas lead to deviations of the actual antenna radiation characteristics from the calculated values. The actual antenna directivity pattern will become some approximation to the calculated one. This problem is important for antenna systems in the super-high frequency range in which the maximum permissible tolerance of the series production is already commensurable with the wave length. The influence of manufacturing imperfections on the radiation of certain super-high frequency antennas were considered in a number of foreign papers /Ref 1,2,3, 4,5/. These papers contain long and complicated calculations which produce with a known approximation an estimation of the radiation characteristics and the

Card 1/4

80V/146-58-4-7/22

The Probability of Obtaining a Given Super-High Frequency Antenna Directivity Pattern

directivity pattern in particular. This paper is the first attempt made for obtaining an approximated solution of the problem of the directivity pattern. The author shows that the relative tolerance of the series production provides with a certain probability the required antenna radiation pattern for radiating co-phased openings with dimensions considerably greater than λ , apart of the dependence of the antenna type. This is achieved by the analysis of the actual directivity pattern under consideration of random deviations in the real phase front in the opening plane. It may be assumed that manufacturing inaccuracies lead to phase and amplitude errors of the field in the radiating aperture. When determining the field in a considerably distance of the antenna, the principle error is caused by the phase deviation, whose influence is considered in this paper as a function of the tolerance. As the manufacturing tolerance is known, then there is a certain probability that ΔV may be found as

Card 2/4

The Probability of Obtaining a Given Super-High Frequency Antenna Directivity Pattern

SOV/146-58-4-7/22

a function of b (maximum possible lag or advance of the element center in regard to the phase surface). Knowing the theoretical amplitude-phase characteristics of the antenna, with the same degree probability, the deviation of the actual directivity pattern from the calculated value may be determined. The connection between the possible phase deviation of a phase front element and a manufacturing tolerance may be established by the root-mean-square deviation. The author derives two equations (26) and (33) which facilitate not only an estimation of the real antenna field in the main direction and for the lobes with a known manufacturing tolerance E_{np} , but they also provide the possibility to anticipate the possible percentage of rejects in the series production by selecting the magnitude X

Card 3/4

$$-N(26) \approx 20 \log \left[\sqrt{1 - x \cdot p \cdot \sin \left(\frac{2\pi}{x} E_{otn} \right)} \right]$$

SOV/146-58-4-7/22
The Probability of Obtaining a Given Super-High Frequency Antenna Directivity Pattern

$$N_{\lambda, 60K.(\theta)} = N_{T, 60K.(\theta)} + \left| N_{T, 60K.(\theta)} + \right. \\ \left. + 20 \log \sqrt{\frac{4\pi \cdot S \cdot x \cdot p^2 \cdot \sin \left(\frac{4\pi}{x} E_{\text{otn}} \right)}{\lambda^2}} \right|$$

where $N_{\lambda, 60K.(\theta)}$ is the actual level of lateral antenna radiation (in decibels), $N_{T, 60K.(\theta)}$ is the theoretical level of antenna radiation. There are 5 diagrams and 8 references, 3 of which are Soviet and 5 English.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki
(Leningrad Institute of Precision Mechanics and Optics)

SUBMITTED: July 10, 1958

Card 4/4

VOROB'YEV, Ye.A., aspirant

~~Determining~~ Determining production tolerances for slot antennas. Izv.
vys.ucheb.zav.; prib. no.5:64-68 '58. (MIRA 12:6)

1. Leningradskiy institut tochnoy mekhaniki i optiki.
(Radio--Antennas)

67473

SOV/146-2-4-18/19

~~9(1)~~ 9,1000

AUTHOR: Vorob'yev, Ye.A., Aspirant

TITLE: The Design of a Printed Antenna²⁵ With a Conical Radiation Pattern

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye, 1959, Nr 4, pp 149-151 (USSR)

ABSTRACT: A new printed antenna (Figure 1) for three-centimeter wave lengths is described. It represents a regular cylindrical cavity whose diameter is far bigger than the wave length and whose height is commensurate with the wave length. The upper and lower walls of the cylinder are made of electroconductive material. Annular radiation slots are cut into the upper wall; they are symmetrical with the cylinder axis and concentric. The cylindrical-wave exciter is in the center of the lower wall. The new antenna differs from other high-directional printed antennas [Reference

Card 1/2

4

67473

SOV/146-2-4-18/19

The Design of a Printed Antenna With a Conical Radiation Pattern

1,27 by its simplicity. It can be used in complex radio equipment for different purposes. This article was recommended by the Kafedra radioperedayushchikh i radiopriyernykh ustroystv (The Chair of Radio-Transmitting and Radio-Receiving Devices). There are 2 photographs and 2 English references.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki
(The Leningrad Institute of Precision Mechanics and Optics).

SUBMITTED: March 14, 1959.

Card 2/2

67474

SOV/146-2-4-19/19

~~9(1)~~ 9,1000

AUTHOR: Vorob'yev, Ye. A., Aspirant; Petrov, Ye. A.,
Engineer; Tennison, G.G., Engineer; Filippov, N.N.,
Senior Instructor

TITLE: An Installation for Measuring and Automatically Re-
cording Directional Patterns of Super-High-Frequency
Antennas,

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostroye-
niye, 1959, Nr 4, pp 152-154 (USSR)

ABSTRACT: In 1958-59, under the supervision of Senior Instructor
N.N. Filippov, the authors developed a high-accuracy
installation automatically recording the directional
patterns of super-high-frequency antennas. The in-
stallation is shown in a diagram (Figure 1) and a pho-
tograph (Figure 2). For continuous automatic recor-
ding, the modernized "EPP-09"/automatic recorder is
used, whose recording tape moves with a velocity of
60 to 20 000 mm/hour. The equipment can be used to
measure the recorded directional patterns for adjusting
and regulating antenna test units in laboratories as

Card 1/2

67474

SOV/146-2-4-19/19

An Installation for Measuring and Automatically Recording Directional Patterns of Super-High-Frequency Antennas

well as in the open air. This article was recommended by the Kafedra radiopriyemnykh i radioperedayushchikh ustroystv (The Chair of Radio-Transmitting and Radio-Receiving Devices). There is 1 diagram, and 1 photograph.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki
(The Leningrad Institute of Precision Mechanics and Optics).

SUBMITTED: July 29, 1959.

Card 2/2

VOROB'YEV, Ye. A.

S/146/60/003/01/016/016
DOC2/DO06

25(6)
9(1)

AUTHOR: Vorob'yev, Ye. A., Post Graduate Student

TITLE: Simulating the Manufacturing Errors of SHF Antennas

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye, Vol 3, 1960, Nr 1, pp 115-118 (USSR)

ABSTRACT: The author proposes a method for simulating the manufacturing errors of SHF antennas for determining experimentally the relation between actual production errors and tolerances. It consists in using relatively simple antenna models with intentionally inaccurate component dimensions in compliance with the law of random errors. The inaccuracy of the dimensions is produced during the manufacturing process of the antenna model with high accuracy. The method is checked experimentally using two antenna models working in the 3 cm radio wave range (Figure 1, photograph), one being an ideal model, i.e. manufactured with an accuracy of ± 0.05 mm, the other having intentional dimensional errors with maximum compliance to the Gaussian Law. The results of the experiments showing the characteristics of both antennas are shown in a graph (Figure 2). Comparison of the theoretical

Card 1/2

S/146/60/003/01/016/016
D002/D006

Simulating the Manufacturing Errors of SHF Antennas

cal and experimental results shows that the method is reliable. The article was recommended by the Kafedra radiopriyenykh i radio-peredayushchikh ustroystv (Chair of Radio-Receiving and Radio-Transmitting Devices). There are 1 photograph, 1 graph, and 7 Soviet references.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki (Leningrad Institute of Precision Mechanics and Optics)

SUBMITTED: December 12, 1959

Card 2/2

85320

S/142/60/003/004/004/013
E192/E382

9.1800

AUTHOR:

Vorob'yev, Ye.A.

TITLE:

The Problem of the Maximum Possible Gain of Ultrahigh-frequency Antennae ²⁵⁸

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1960, Vol. 3, No. 4, pp. 471-476

TEXT: The influence of the phase errors in the wave front on the reduction of the gain of highly directional antennae is considered. The evaluation of the reduction in gain of a real directional antenna is carried out under the assumption that the phase front in the antenna aperture can be represented in the form of a steplike phase surface. This is divided into n elements so that the overall theoretical field of the antenna is given by:

$$\bar{F}_T = \sum_{i=1}^{i=n} a_i \cdot e^{j\psi_i} \quad (1)$$

where a_i is the modulus and ψ_i is the phase of a field element. Due to the constructional imperfections of the

Card 1/5

85320

S/142/60/003/004/003/013
E192/E382

The Problem of the Maximum Possible Gain of Ultrahigh-frequency Antennae
antenna elements, phase errors $\Delta\psi_i$ appear in the phase front. The field of the real antenna can thus be represented by:

$$\bar{F}_0 = \sum_{i=1}^{i=n} a_i \cdot e^{j(\psi_i + \Delta\psi_i)} \quad (2)$$

Since the mechanical errors in the antenna (due to the mechanical tolerances) are random, the phase front errors are also random and distributed in accordance with the Gaussian law. The relationship between the tolerance ϵ_{OTH} and the probable mean square phase deviation $\sigma\Delta\psi_i$ can be represented by:

$$\sigma\Delta\psi_i = \frac{2\pi}{x} \cdot \epsilon_{OTH} \quad (3)$$

Card 2/5

85320

S/142/60/003/004/004/013
E192/E382

The Problem of the Maximum Possible Gain of Ultrahigh-frequency Antennae

where x is the probability factor determining the relationship between the given tolerance and the magnitude of the mean square deviation for this tolerance (normally $x = 2.6$). The relationship between the relative tolerance ϵ_{OTH} and the production tolerance is expressed by Eq. (4), where λ is the effective wavelength of the antenna. Eq. (3) can, therefore, be written as Eq. (5). Eq. (2) can be rewritten as Eq. (6) provided $\Delta\psi_1$ are small. Eq. (6) can also be represented as Eq. (8). All the terms of Eq. (8), except the first one, depend on the random variable $\Delta\psi_1$ which obeys the normal distribution law. On the basis of the above formulae it is shown that the reduction in the gain (db) of a real antenna in comparison with a theoretical one, is expressed by:

Card 3/5

85320

S/142/60/003/004/004/013
E192/E382

The Problem of the Maximum Possible Gain of Ultrahigh-frequency Antennae

$$N_{\text{ocm}}(\beta) = 10 \frac{F_0^2}{F_T^2} = 10 \lg \left[1 - \left(\frac{2\pi}{x} \cdot \epsilon_{\text{OTH}} \right)^2 \right] \quad (9) .$$

The gain of the real antenna can thus be expressed by Eq. (10). This can be rewritten as Eq. (13) in which p is the surface utilization coefficient, K_S is a coefficient dependent on the shape of the antenna aperture; n is defined by Eq. (12), where L is the longest linear dimension of the antenna aperture. Eq. (13) can approximately be written as Eq. (15), where m is defined by Eq. (14). The optimum value of the gain is obtained when n is expressed by Eq. (16). If it is assumed that $x = 2.6$, the optimum value of gain is given by Eq. (17). By investigating the above it is found that the maximum possible gain of ultrahigh-frequency antenna is of the

Card 4/5

85320

S/142/60/003/004/004/013
E192/E382

The Problem of the Maximum Possible Gain of Ultrahigh-frequency Antennae

order of 70 db; this value is obtained from Eq. (17) for $m = 0.001$. If an attempt is made to obtain higher gains, the difficulties connected with achieving very high mechanical tolerances will become considerable. There are 5 Soviet references.

ASSOCIATION: Kafedra radiopriyemnykh i radioperedayushchikh ustroystv Leningradskogo instituta tochnoy mekhaniki i optiki (Chair of Radio Receiving and Transmitting Devices of the Leningrad Institute of Precision Mechanics and Optics)

SUBMITTED: June 1, 1959, initially;
September 7, 1959, after revision. X

Card 5/5

5/142/63/006/001/012/015
E192/E382

TITLE: Influence of ohmic losses in long antenna arrays
on their gain

where α represents a linear loss coefficient. The relative
power can be estimated

of the supplied power. All other
of the supplied power is substantially attenuated to a total

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860830002-3

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860830002-3"

ACCESSION NR: AP4029456

6/0108/64/019/004/0017/0018

AUTHOR: Vorob'yev, Ye. A.

TITLE: Effect of nonradiating elements upon the radiation characteristics of pencil-beam antennas

SOURCE: Radiotekhnika, v. 19, no. 4, 1964, 17-18

TOPIC TAGS: antenna, SHF antenna, pencil beam antenna, beam antenna, antenna radiation characteristics

ABSTRACT: Two approximate formulas are developed for the directive gain and the radiation pattern which allow for the presence of a nonradiating element (structural member) in an SHF-antenna aperture. The element is regarded as the source of a special type of phase error; it is assumed that the element does not distort the amplitude-and-phase distribution in other points of the aperture, that it has a counter-phase field, and that the greater linear dimension of the

Cord 1/2

ACCESSION NR: AP4029456

element is comparable with the operating wavelength. Orig. art. has: 6 formulas.

ASSOCIATION: none

SUBMITTED: 26Jun62

DATE ACQ: 30Apr64

ENCL: 00

SUB CODE: EC

NO REF SOV: 002

OTHER: 000

Card 2/2

L 8770-66

EWTC(1)/T/FCS(6)

WR

ACC NR: AR5018770

SOURCE CODE: UR/0274/65/000/007/A051/A051

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz'. Svodnyy tom, Abs. 7A334

AUTHOR: Vorob'yev, Ye. A. 44

TITLE: Design of multihorn shf pencil-beam antennas 238, 41

CITED SOURCE: Tr. Leningr. in-t aviats. priborostr., vyp. 43, 1964, 111-119

TOPIC TAGS: horn antenna, pencil beam antenna, shf antenna

TRANSLATION: A possibility is considered of designing pencil-beam antennas consisting of a linear array of sectoral horns whose dimensions are small in comparison with a single-horn antenna; a smaller size for the same directional pattern is sought. Formulas are presented for calculating the directional pattern, gain, and directive gain. A linear array of 18 horns with $2\lambda \times 5\lambda$ apertures and 6λ generatrix is considered. The antenna is fed by a waveguide terminated with an absorber and exciting the array horns in series. The efficiency of such a system is 6%. With a directive gain of 1450, the theoretical gain is 900 and the experimental, 880. The directional pattern width is $1^\circ 26''$ and $1^\circ 30''$, and the maximum side-lobe level is 12.4 and 12.5 db, respectively. Bib 5, figs 3, tab. 1.

SUB CODE: 17

jw

Card 1/1

UDC: 621.396.677.493

L 8768-66 EWT(1)/EWT(m)/T/EWP(b)/EWP(t) IJP(c) GG/JP

ACC NR: AR5018774

SOURCE CODE: UR/0274/65/000/007/A084/A084

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz'. Svodnyy tom, Abs. 7A591

AUTHOR: ^{44, 55} Vorob'yev, Ye. A.; ^{44, 55} Shchegolev, V. A.TITLE: Precision measuring electric parameters of thin dielectric films ^{44, 55}

CITED SOURCE: Tr. Leningr. in-t aviats. priborostr., vyp. 43, 1964, 126-133

TOPIC TAGS: ^{44, 55} dielectric measurement, ^{21, 44, 55} thin film circuit

TRANSLATION: A method is described of measuring ^{21, 44, 55} dielectric constant ϵ , and electrical thickness $t = t_g \sqrt{\epsilon_0} / \lambda_0$ of films, in the shf band ($f = 9600$ Mc); the measurement covers a small spot of the film and does not inflict any mechanical damage to or destruction of the film. Two shf measurement outfits are considered which depend on the effect of the film geometrical thickness t_g upon the phase shift of the signal passing through the film. The results of measurements of various-material films, the instability of operation of individual assemblies, and their errors are discussed. The measurement error of the above outfit was 2--~~3~~ or less.

SUB CODE: 09

jw

Card 1/1

UDC: 621.317.799.029:621.315.61

SOURCE CODE: UR/0274/65/000/007/A053/A053

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz'. Svodnyy tom, Abs. 7A348

AUTHOR: Vorob'yev, Ye. A.⁴⁴; Ivanov, B. P.⁴⁴

TITLE: Experimental investigation of characteristics of the antennas whose aperture modulates in time

CITED SOURCE: Tr. Leningr. in-t aviats. priborostr.⁴⁴, vyp. 43, 1964, 134-139

TOPIC TAGS: antenna, antenna directional pattern, horn antenna

TRANSLATION: The effect of time modulation of size or shape of the antenna aperture upon its directional pattern is considered. If the aperture length is ξ and its variation is $\Delta\xi$, the aperture modulation factor will be $m = \Delta\xi/\xi$. It is shown that the values ξ and $\xi - \Delta\xi$ can be so proportioned that the side lobes for the second dimension will coincide with the zeros of the first dimension. With a time modulation of dimension having a modulation factor m , the average value of the side lobes decreases. A multihorn $65\lambda \times 5\lambda$ antenna was experimentally investigated. The modulation was realized by a periodic shielding of a part of the aperture with a rotating punched disk, which carried an absorbent on its internal side for reducing the antenna mismatch. With $m = 0.3$, the side-lobe level was lower by 2.6 dB, but also the antenna directive gain of 400 decreased by 20--25%. The aperture-shape modulation was carried out by means of a round paraboloid of 15λ diameter at whose edge a ring

Card 1/2

UDC: 621.396.67.012.12

L 8543-66

ACC NR: AR5018771

with rectangular projections was rotated. A lobe attenuation of 2--3 db was obtained.
Figs 7.

SUB CODE: 09, 17

Card 2/2

jw

nl

SECRET REL. 2001-1-1

AUTHORS: Vorob'yev, Ye. A.; Shchegolev, V. A.

... of thin dielectric films

FIKHMAN, V.D.; ASH, M.A.; VOROB'YEV, Ye.A.; PAKSHVER, A.B.

Mechanism of the formation of polyvinyl chloride fibers. Khim.
volok. no.1:28-34 '65. (MIRA 18:2)

1. VNIISV (for Fikhman, Ash, Pakshver). 2. Vsesoyuznyy zaochnyy
institut tekstil'noy i legkoy promyshlennosti (for Vorob'yev).

VOROB'YEV, Yevgeniy Aleksandrovich; KATASHOVA, R.I., red.;
TOLYPINA, O.N., red.; PONOMAREVA, A.A., tekhn. red.

[Methodological problems of measuring and analyzing labor
productivity] Metodologicheskie voprosy izmereniia i ana-
liza proizvoditel'nosti truda. Moskva, Ekonomizdat, 1963.
166 p.

(MIRA 17:1)

(Labor productivity)

L 08242-67 EWT(d)/EWT(1)/EWT(m) JD/JAJ

ACC NR: AR6032320

SOURCE CODE: UR/0274/66/000/007/B032/B032

AUTHOR: Vorob'yev, Ye. A.; Kuznetsov, N. A.

TITLE: Contactless method of measuring distances and small displacements with high accuracy

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz' Abs. 7B205

REF SOURCE: Tr. Leningr. in-t aviats. priborostr., vyp. 45, 1965, 127-130

TOPIC TAGS: measurement, radio engineering, distance measurement

ABSTRACT: A radio engineering method for measuring distances and small displacements for items made of radio-opaque materials. The action principle of the measuring circuit is described, its operation is analyzed, and the results of the experiment carried out on a model are given. [Translation of abstract]

SUB CODE: 09/

Card 1/1

UDC: 621.396.96:621.371

L 22774-66 EWT(1)/EWA(h)

ACC NR: AP6010733

SOURCE CODE: UR/0142/66/009/001/0130/0132

AUTHOR: Vorob'yev, Ye. A.

ORG: none

TITLE: Interferometer for measuring the dielectric constant of dielectrics in the microwave region

SOURCE: IVUZ. Radiotekhnika, v. 9, no. 1, 1966, 130-132

TOPIC TAGS: interferometer, dielectric constant, dielectric material

ABSTRACT: A radio interferometer system developed for measuring the dielectric constant of flat dielectrics in free space in the microwave region ($\lambda = 3-5$ mm) is briefly described. The system can be used both for controlling flat dielectric plates and for measuring the electric thickness of the walls of antenna domes. The klystron generator used in the system is isolated from the transmitting horns of the reference and measuring channels by means of a directional coupler and double waveguide bridges. To establish initial phase-amplitude relationships, a phase shifter is coupled to the reference channel, and an attenuator is included in the measuring channel. The receiving horns of the reference and measuring channels are both mutually decoupled and decoupled with respect to the phase indicator by means of double

Card 1/2

UDC: 621.317.335.029.65

L 22774-66

ACC NR: AP6010733

waveguide bridges. The receiving part of the system is rigidly attached to a movable carriage with an indicator for performing exact readings of displacements of the receiving horns with respect to the fixed transmitting horns. The system is first balanced without the dielectric to achieve equal power in both channels and secure opposite phases of the signals entering the phase indicator. A plate of the dielectric material to be measured is then placed between the horns perpendicular to their axis. Orig. art. has: 2 figures and 1 table.

[JR]

SUB CODE: 09/ SUBM DATE: 15Feb65/ ATD PRESS: 4229

Card 2/2 *da*

ACC NR: AP6032925

SOURCE CODE: UR/0142/66/009/003/0359/0362

AUTHOR: Vorob'yev, Ye. A.

ORG: none

TITLE: Some criteria of fabricating large-size monolithic radomes

SOURCE: IVUZ. Radiotekhnika, v. 9, no. 3, 1966, 359-362

TOPIC TAGS: radome, aircraft radome

ABSTRACT: Formulas for the maximum radome height (measured in working-wavelength units) as a function of radome-material dielectric constant, for the error associated with radome machining, and for the dielectric-constant-deviation tolerance are derived. The effect of the radome mean-square phase error on the antenna-radiation characteristics can be estimated by well-known methods, and thereby the relations between the radome-machining parameters and the antenna-proper characteristics can be established. It is found that the practical accuracy of modern machining methods does not permit fabrication of large-size half-wave radomes higher than $80 \lambda_0$. Orig. art. has: 1 figure and 16 formulas.

SUB CODE: 09 / SUBM DATE: 16Mar65 / ORIG REF: 002

Card 1/1

UDC: 621.396.677.8

VOROB'YEV, Ye.A.

Johnson's comet (1949 II- 1956 V). Astron. tsir. no.234:2-3
F '63. (MIRA 16:6)

1. Astronomicheskaya observatoriya im. Engel'gardta.
(Comets--1956)

VOROB'YEV, Ye.A.

Measurement indices of labor productivity. Avt.prom. no.3:1-3
Mr '61. (MIRA 14:3)

1. Institut ekonomii AN SSSR.
(Labor productivity)

VOROB'YEV, Ye.A.

Possible identity of Barnard's comet (1884 II) and Johnson's
comet (1949 II and 1956 V). Astron. tsir. no.241:3-4 Ap'63
(MIRA 17:3)

VOROB'YEV, Yevgeniy

Structural steel workers on high buildings. Sov.profsoiuzy 17
no.10:30-36 My '61. (MIRA 14:5)
(Construction workers) (Socialist competition)

VOROB'YEV, Yevgeniy

At high altitudes. Sov.foto 22 no.3:11-13 Mr '62. (MIRA 15:2)
(Electric industry workers)

VOROB'YEV, Yevgeniy.

Salt of the earth. Tekh.mol. 24 no.5:36-38 My '56. (MLBA 9:8)
(Wieliczka, Poland--Salt mines and mining)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860830002-3

VOROD'EV, VED.

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001860830002-3"

VOROB'YEV, Ye.D.

"Uranium-Water Intermediate Reactor Used for Obtaining
High-Intensity Neutron Fluxes" (Paper to be presented at 1958 UN
"Atoms for Peace" Conference, Geneva).

Doklady sovetskikh uchenykh; yadernyye reaktory i yadernaya energetika.
(Reports of Soviet Scientists; Nuclear Reactors and Nuclear Power) Moscow,
Atomizdat, 1959. 707p. trudy vol. 2.

VOROB'YEV, YE. D.

21(1)
AUTHORS: Pletov, G. N., Kaleshnikova, V. I., 807/56-36-3-11/71
Vorob'yev, Ye. D., Stolyarov, G. A., Podgurskaya, A. V.
TITLE: Neutrons of High Energies in Cosmic Rays (Neutrony bol'shikh
energii v kosmicheskikh luchakh)
PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,
vol. 36, Pt. 3, pp. 727-734 (USSR)

ABSTRACT: In 1945 Pletov and Stolyarov discovered that by cosmic radia-
tion nuclear fission may be caused in the case of uranium
and thorium. In the meantime, a number of experimental inves-
tigations was carried out for the purpose of determining
that cosmic radiation component which is responsible for
fission on heavy nuclei. This was also the task to be per-
formed by the present paper. The authors used multi-layer
ionization chambers to detect the effect of heavy nuclei fis-
sion in cosmic rays. They investigated the altitude dependence
of fission in altitudes of 4700, 3660 and 2200 m above sea
level (Peairs, $\lambda = 28^\circ$) and 120 m above sea level ($\lambda = 52^\circ$).
Figure 1 shows the calculated and measured dependence of the
intensity of the fissioning component on altitude. The curve
shows a practically linear decrease of fission frequency with

Card 1/3

Neutrons of High Energies in Cosmic Rays 807/56-36-3-11/71
increasing atmospheric density, i.e. fission frequency increases
linearly with altitude. Actually, fissions occur rarely, 1 - 2
fissions per 1 g of thorium within 24 hours. Further investi-
gations devoted to the angular distribution of the fissioning
component. These investigations were carried out at 3660 m
above sea level (Peairs, $\lambda = 28^\circ$). Measuring results are shown in form
of a diagram (Fig. 2) which they compare with the calculated
curves. The two curves differ slightly from each other. Fur-
ther investigations concern the energy and momentum determina-
tion of the fissioning component. Results:
Absorber thickness of range of fissioning component
in g/cm² in consideration of
the atomic weight of the absorber
experimental result
Graphite 119 (126) 4105120 130
" 136 (144) 5505100 130
" 177 (186) 3405190 130
Aluminum 125 (207) 4105100 130
" 150 (120) 3405110 170
" 300 (240) 3305105 170

Card 2/3

Neutrons of high energies in cosmic rays
The values in brackets are obtained if the atomic weight of
the absorber is taken into account. In most cases of heavy
nuclei fission, the latter is found to be caused by the
nucleon component of cosmic radiation. The authors finally
thank the staff of the Fizicheskii Institut AN SSSR
in P. M. Lebedev (Physics Institute AS USSR named P. M.
Lebedev), with whose assistance the majority of experiments
in high altitudes was carried out, and 1 of further thank
Academician I. V. Kurchatov for his interest in this work.
There are 3 figures, 1 table, and 7 references, 5 of which
are Soviet.

SUBMITTED: September 2, 1959

Card 3/3

FEYNBERG, S. M.; TSYKANOV, V. A.; VOROBYEV, Ye. D.

"Reactor SM-2 with the Highest Available Neutron Flux."

report submitted for 2nd Intl Conf, Peaceful Uses of Atomic Energy, Geneva
31 Aug-9 Sep 64.

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ACCESSION NR. AP5001267

APPROVED FOR RELEASE: 03/14/2001

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VO ROB'YEV Ye I.

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11F

The reciprocally contradictory interaction of the thyreo-
tropic function of the hypophysis and thyroid. M. M.
Zavaslavskii and L. L. Zavaslavskii. *Izv. vuzov, med. nat.*
U. R. S. S. 7, 524 7 (1969) (in English). The feeding of
male rats with thyroid preps. causes a decrease in the
wt. and function of the thyroids of the exptl. animals.
S. A. Karjala

456-15A METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/14/2001

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✓ The distribution of business in the economy is not

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Atomic physics and medicine. Zdorov'e 1 no.5:6-7 My '55.(MLBA 9:3)
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VOROB'YEV, Ye.I.; MARGULIS, U.Ya., redaktor; POPRYADUKHIN, K.A.
tekhnicheskii redaktor.

[Radioactive isotopes in medicine and biology; a practical manual]
Radioaktivnye izotopy v meditsine i biologii; prakticheskoe
rukovodstvo. Moskva, Gos.izd-vo meditsinskoj lit-ry, 1955. 231 p.
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aus Tabcon.

Atomnaya Energiya i Protivoatomnaya Zashchita (Atomic Energy and Antiatomic Defense), by Ye. I. Vorob'yev and U. Yu. Marguli, edited by A. Ignat'yeva, Moscow, In-t San. Prosveshch-eniya, 1956, 78 pp (lecturer's aid), from a standard card of the USSR State Library imeni V. I. Lenin, No 358.5)

"A popular discussion of the structure of matter, radioactivity, nuclear reactions, atomic energy, and use of atomic energy. The destructive effect of an atomic explosion, shock wave, and radioactive and light radiation are described together with protective measures. Separate chapters are devoted to first aid for atomic bomb explosion casualties, monitoring, decontamination, and protective shelters. Bibliography (2 titles). Instructions for the lecturer are given at the end of the book." (U)

Sum. in 1/67

KOZLOVA, Anna Vasil'yevna, professor; VOROB'YEV, Yevgeniy Ivanovich;
KANAREVSKAYA, A.A., redaktor; MARSHULIS, U.Ya., redaktor; SACHEVA,
A.I., tekhnicheskii redaktor

[Clinical and therapeutic aspects of injuries caused by atomic
bomb explosions] Klinika i lechenie povrezhdenii voznikaushchikh
pri vzryve atomnoi bomby. Moskva, Gos. izd-vo med. lit-ry, 1956.
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